

Hampshire Country Club Planned Residential Development
Village of Mamaroneck,
Westchester County, New York
Final Environmental Impact Statement

J Flood Gate Assessment



MEMORANDUM

To: Mr. Dan Pfeffer
From: Michael Junghans, PE
Kimley-Horn and Associates, Inc.
Date: 2018-09-07
Subject: Hampshire Country Club – Flood Gate Assessment

This memorandum is being submitted by Kimley-Horn of New York P.C. to document field observations of the condition of the tidal flood gates currently being used at the Hampshire County Club in Mamaroneck, New York.

History:

Tidal gates were installed at the site in the late 1920's to prevent high tide waters from entering the site allowing the establishment of additional usable land which would become the Hampshire Country Club. Tidal gates were established at the two tidal inflow points to the site, Delancey Cove and Hommocks Road. Site drainage channels are routed to the tidal gates for eventual discharge from the site to Long Island Sound. The tidal gates have been upgraded and maintained through the years by the golf club. Currently the Hampshire Recreation LLC maintains both sets of flood gates.

Operation:

The flood gates are all hinged flap gates. They are weighted steel disks hinged at the top of the pipe mounted on the tidal end of the pipe. When the tide rises, the disk is held closed over the end of the discharge pipe preventing tidal water from entering the site. Tidal water rises and covers the tidal gates at high tide. If a rain event occurs while the gates are closed, rainwater will accumulate in the on-site until the flood gate open at low tide. When the tide recedes, the tide drops below the tide gates and the hydraulic pressure from any accumulated rain water on site pushes the disk open and rain water discharges to the Long Island Sound.

Condition:

On August 30, 2018, during low tide, I performed an inspection of the tide gates at Delancey Cove and Hommocks Road. Attached are photos of the flood gates at each location.

At Delancey Cove there are three flood gates, number 1, 2 and 3. All flood gates are hinged flap style gates. These flap gates are mounted on concrete headwalls at the end of three pipes that drain the southern portion of the site. The inspection showed that the three gates were in good working order. As presented in the pictures, all three gates were in the closed position during low tide. There were no obstructions or evidence of water being detained on site due to flood gate malfunction. I noticed the accumulation of minor debris in the vicinity of the gates due to tidal wash in and out of the cove. The minor debris was not impacting the gate operation.

At Hommocks Road there are two gates within subgrade concrete structures at the edge of the sports fields at Hommocks School. The gates are the same flap type as the gates at Delancey Cove. The structures are connected to pipes that discharge to the wetland area west of Hommocks School. The flood gates are mounted to the interior of the structure on the tide side of the discharge pipe from the site. The gates appear to be in excellent condition and do not appear to have any significant accumulation of debris. There were no obstructions or evidence of water being detained on site due to flood gate malfunction.

I spoke to Scott Olsen of Hampshire Recreation, who maintains the gates. He explained that they perform regular inspection after storm events and periodic removal of debris from the vicinity of the gates to ensure continued operation of the tide gates. He noted that gates are replaced from time to time as issues are identified. The consistent operation of the gates is critical to the operation of the golf course and is therefore a priority.



1. Delancey Cove Flood Gates



2. Flood Gate 2 - Delancey Cove



3. Flood Gate 1 - Delancey Cove



4. Flood Gate 3 - Delancey Cove



5. Flood Gate 4 Cover - Hommocks Field



6. Flood Gate 4 - Hommocks Field



7. Flood Gate 5 Cover - Hommocks Field



8. Flood Gate 5 - Hommocks Field